DOCUMENT RESUME

ED 261 448 CS 505 072

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TITLE The Relationship of Communication Anxiety, Avoidance and Competence of Non-Native English Speakers in the U.S.
PUB DATE May 85
NOTE 30p.; Paper presented at the Annual Meeting of the International Communication Association (35th, Honolulu, HI, May 23-27, 1985).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Bilingualism; *Bilingual Students; *Communication Apprehension; *Communication Research; *Communicative Competence (Languages); Comparative Analysis; *English (Second Language); Foreign Students; Higher Education; Language Proficiency; Sex Differences; Student Attitudes

ABSTRACT

A study was conducted to determine the levels of communication apprehension (CA) experienced by individuals living in the United States whose native language is not English and to measure the extent to which CA varies with the interaction contexts, number of years speaking English, time living in the United States, and the speaker's sex. Subjects were 242 international students from 45 countries who completed two versions of a communication apprehension instrument, one to assess feelings of apprehension associated with speaking in the subject's native language, the other for apprehension about speaking in English. Data were also collected on subjects' sex, number of years speaking English, number of years in the mainland United States, and place of ethnic origin. The results indicated that Middle Eastern and European subjects reported levels of apprehension well below norms previously established by U.S. subjects, while Asian and Latin American subjects reported levels just slightly below those norms when communicating in their native languages. All groups indicated that CA was more of a problem in English, with Asians and Latin Americans reporting the highest levels. Females were slightly more apprehensive overall when communicating in either language, but women in the Latin American sample reported less apprehension than males in every context except public speaking. Neither the subjects' number of years speaking English nor the length of time living in the United States correlated with CA, suggesting that neither competency nor skill in a second language is related to the amount of trait apprehension experienced by bilingual speakers in varying contexts. (HTH)

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ED261448

# THE RELATIONSHIP OF COMMUNICATION ANXIETY, AVOIDANCE AND COMPETENCE OF NON-NATIVE ENGLISH SPEAKERS IN THE U.S.

by

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A paper presented at the International Communication Association Annual Conference, Honolulu, HI, May 1985.

CS505072

## ABSTRACT

THE RELATIONSHIP OF
COMMUNICATION ANXIETY, AVOIDANCE AND
COMPETENCE OF NON-NATIVE ENGLISH SPEAKERS IN THE U.S.

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The purposes of this study were 1) to determine the levels of communication apprehension experienced by the individuals who live in the U.S., but whose native language is not English; 2) to measure the extent communication apprehension varies with the interaction contexts, number of years speaking English, time living in the U.S., and the sex of the speaker.

PRCA-24 scores and other data obtained from 242 international students indicated that all but the Asians had a frequency of high apprehensives below the U.S. norm of 20 percent. However, when speaking English, Asian and Latin American subjects reported higher general and specific context apprehension than other ethic groups. Europeans and Middle Easterners were below the U.S. norm.

Females were slightly more apprehensive overall when communicating in either first languages or English, but in the Latin American sample, women reported less apprehension than males in every context except public speaking. Neither the number of years speaking English, or the length of time living in the U.S. correlated with communication apprehension. This suggests that neither competency or skill in a second language is related to the amount of trait apprehension experienced by bi-lingual speakers in varying contexts.

COMMUNICATION APPREHENSION IN BILINGUAL NON-NATIVE U.S. RESIDENTS -- PART II: GENDER, SECOND LANGUAGE EXPERIENCE AND COMMUNICATION APPREHENSION IN FUNCTIONAL CONTEXTS

By the beginning of the 1980's there were more than 3000,000 foreigners with student visas enrolled in U.S. colleges and universities in the United States. It is estimated that this number may exceed one million before the end of the century. These figures do not reflect those from other countries who attend U.S. colleges and have tourist, diplomatic, immigrant, refugee, political asylum, and even illegal status. Add to these the vast number of U.S. citizens who do not consider English their first language (e.g., large numbers of Hispanic U.S.citizens, descendents of Pacific cultures in Hawaii, naturalized citizens from Southeast Asia, etc.), and it can readily be seen that the education of non-native English speakers is a major concern in higher education in the United States.

It is evident that competency in English as a second language is crucial both to the quality of non-native U.S. students' learning, and to the formation of faculty attitudes. Three affective variables have been found to predict success in language acquisition: (1) motivation; (2) self-confidence; (3) anxiety (Krashen, 1981). Researchers in Speech Communication have found that communication apprehension (CA) is strongly associated with these affective components in oral communication performance situations (McCroskey, 1977b; McCroskey & Richmond, 1981; McCroskey, Fayer, Richmond, 1983; Richmond & Andriate, 1984).

Communication apprehension, and individual's fear or anxiety associated with either real or anticipated communication with another person or persons (McCroskey, 1977b), has received extensive attention from researchers in the United States during the last decade (Payne & Richmond, 1984). The results of such research indicate that CA is a problem for a major segment of the mainland U.S. population. The phenomonon of CA is closely associated with communication avoidance. Those persons with high communication apprehension have been found to avoid oral communication in most situations, regardless of how necessary such interaction is to their personal and/or social welfare (McCroskey, 1982; Daly & McCroskey, 1984).

CA in cultures outside the U.S. mainland has recently begun to receive attention from communication researchers. In comparison with American norms, Klopf and his colleagues found a higher incidence of CA among Japanese and Hawaiian Americans and a lower incidence among Koreans. Norms for Guamanians and mainland Chinese were reported to be similar to the mainland U.S. norms (Klopf & Cambra, 1979; Bruneau, Cambra & Klopf, 1980; Klopf & Cambra, 1980). Considerable data collected in Australia reveal that the Australian and mainland U.S. norms did not vary (Hansford & Hattie, 1979; Klopf & Cambra, 1979). Although the constructs of CA and shyness are not isomorphic, there are close parallels (McCroskey, 1982).

The work of Zimbardo (1977) indicates substantially lower levels of shyness among residents of Israel and Jewish Americans. Zimbardo also found a significantly higher proportion of shy people among Hawaiian Americans and Japanese.

While the sparse data indicates that CA norms may vary from culture-to-culture, the general conclusion is that the general effects of CA, such as internal discomfort, avoidance, withdrawal, and disruption, are pancultural (Richmond & Andriate, 1984). The implications of these effects for communicating in a second language are serious. If a student is apprehensive about communicating in a second language s/he will not feel high affect toward speaking in that language and will likely avoid doing so. Since CA in U.S. students has been found to impact both classroom behavior and the affective component of learning (McCroskey, 1977a), it would be expected that those non-native English speakers who were highly apprehensive would be more passive in the classroom, and the problem would be acute when English is the primary mode of com-comunication.

A few studies have examined the levels of CA experienced by bilingual communicators. McCroskey and his colleagues found that Puerto Ricans experienced significantly more apprehension when communicating in their second language (English) than they experienced when communicating in their first language (Spanish).

Puerto Ricans reported being well below norms established on U.S. mainlanders when communicating in Spanish, but over 40 percent reported being highly apprehensive when communicating in English (Fayer, McCroskey & Richmond, 1982; McCroskey, Fayer & Richmond, 1983).

This study is the second in a series undertaken to determine the extent to which bilingual persons experience anxiety or apprehension when communicating in a cultural environment requiring the functional exercise of English as a second language. Hopefully these studies will reflect light on the difficulties experienced by non-native speakers attending mainland U.S. schools.

In the previous study in this series, Allen and Andriate (1984) reported that the incidence of CA in Asian and European groups when speaking in their native language differed little from the incidence in mainland U.S. groups; however, both Asians and Europeans reported significantly higher levels of CA when speaking English. Students from Latin America reported levels of CA significantly below U.S. norms when speaking their native language, but were significantly higher in CA when speaking in English. Students from the Middle East reported significantly lower CA when speaking both in their native language and when speaking in English.

The current conceptualization of CA suggests that apprehension levels may differ across communication situations. Four communication contexts have been identified as contributing to generalized trait-like CA. These contexts include: (1) group

communication, (2) communication in meetings, (3) dyadic or interpersonal communication, and (4) public speaking situations (McCroskey, 1982). The learned helplessness explanation of the development of CA suggests that individuals learn to feel anxious in situations where they perceive little control over their fate (McCroskey & Richmond,1982). It can be assumed that those to whom English is a second language would find many modes of communicating in the U.S. ego-threatening. Communicating in such contexts may result in lowered affective thresholds culminating in heightened anxiety, withdrawal, less practice in the second language, and negative academic consequences (Krashen, 1981). Because of the important implications, it was decided to extend the previous study by Allen and Andriate (1984). The effects of CA experienced in varying, specific contexts by non-native speakers of English studying at a mainland U.S. university were explored. The following research questions were examined:

1). Are non-native English speakers in the mainland United States more apprehensive when communicating in English than when communicating in their native language?

2). Does the frequency of communication apprehension experienced by non-native English speakers in the mainland United States vary along ethnic lines?

3). When communicating in either English or their native language, do non-native English speakers differ in amounts of communication apprehension experienced in specific contexts -- groups, meetings, dyads, public speaking?

Additionally, the impact of sex differences on the amount of CA experienced by the non-native English speaking population studying in the U.S. was measured. The existing research is inconclusive as to whether males or females tend to be more anxious when communicating. Females have been found to be slightly more apprehensive in formal communication contexts -- meetings and public speaking, while males have been found to be more apprehensive in interpersonal contexts. However, the amount of CA variance accounted for by sex differences has been very low, leading to conclusions that cultural differences may be more important than biological sex in accounting for differing amounts of CA experienced by males and females (Greenblatt, Hasenauer, & Freimuth, 1980; Talley & Richmond, 1980; McCroskey, Simpson & Richmond, 1982; Allen, 1984; Andriate & Allen, 1984). There is general agreement that women are currently socialized to convey impressions of sensitivity, tenderness, and nurturance, and such "traditionally" socialized "feminine" women would probably be apprehensive in those communication situations calling for assertive behaviors (Leary, 1983). The women of underdeveloped and third world cultures are generally perceived as being subservient, meek and lacking assertive verbal skills and behavior. It would be expected that women from these more "traditional" cultures would possess low self-presentational efficacy, and therefore would experience higher levels of anxiety in a mainland U.S. university environment. It should be pointed out that some

have debunked this traditional sterotype as a myth, insisting that women from third world cultures are no less assertive than men (Juarez, 1984). An additional research question was:

4. Do females and males who are non-native speakers of English differ in terms of CA experienced when communicating in either native language or English?

Previous studies have indicated that the relationship between CA and proficiency in a language is tenuous (McCroskey, Fayer & Richmond, 1983; Allen, Andriate & Cusick, 1982; Allen & Andriate, 1984). However, many ESL (English as a second language) programs are predicated on the idea that length of time spent studying a language is synonymous with the ability to function in English. Morever, English competency, as measured on a standardized test, is considered adequate for participating orally in U.S. university classrooms, but the Test of English as a Foreign Language (TOEFL) has been found to be a better predictor of poor preparation than of English language proficiency (Goodwin & Nacht, 1983). It was decided to collect data relative both to the number of years English had been spoken as a second language, and to the number of years the non-native English speaker had been in the mainland U.S. to see if the functional practice of English as a second language affected CA. The final research question was:

5). Is either length of time speaking English as a second language, or length of time in the mainland U.S. functionally practicing English predictive of lower levels of CA being experienced by non-native English speakers?

## METHODS

Communication apprehension was assessed using the twenty-four item version of the Personal Report of Communication Apprehension (PRCA-24) (McCroskey, 1982). This instrument has high reliability and predictive validity (McCroskey & Beatty, 1984). There is substantial normative data available for this self-report instrument. Data from over 25,000 subjects indicates a mean of 65.6 and a standard deviation of 15.3 (McCroskey, 1984). The PRCA-24 allows for CA to be assessed over the four separate contexts: group, meeting, dyad, and public speaking. Two versions of the PRCA-24 were administered to 242 international students from 45 countries attending a medium-sized, private university in the northeastern United States. The first version of the PRCA-24 was targeted to assess feelings of apprehension associated with speaking in the the subjects' native language. The second version of the PRCA-24 was targeted to assess feelings of apprehension associated with speaking English. As can be seen from Table 1, alpha reliabilities for the PRCA-24 total score and sub-scores for both native language and English were high. Data was also collected relative to sex, years speaking English, years in the mainland U.S. and place of ethnic origin.

For purposes of analysis, subjects' places of ethnic origin were grouped into 4 regions: Asia, Europe, Latin America, and the Middle East. These are broad groupings and it must be kept in mind that these results are descriptive of a wide-range of language

using behaviors, and not descriptive of such behaviors within particular areas or countries within a region. However, all subjects within each regional group do have certain cultural and communication characteristics in common.

## RESULTS

The bilingual subjects in this study reported a mean of 63.64 on the PRCA-24 when communicating orally in their native language, and a mean of 69.2 when communicating in English (Table 2). When compared with the mean PRCA score of 65.6 derived from mainland U.S. samples of 25,000 (McCroskey, 1984), on the whole CA appears to be less of a problem for bilingual speakers in the U.S. when communicating in their native language than it is for native English speakers. However, as Allen and Andriate (1984) reported in the antecedent to this study, CA is generally more of a problem for the non-native student in the U.S. when English is the mode of communication.

An examination of the total PRCA-24 scores computed by specific region indicates that Asian students experience significantly more apprehension when speaking in their native language than either European, Latin American, or Middle Eastern students ($F=3.20$, $p$ .03). Subjects from all regions showed increased CA when communicating in English. A comparison of the means of the groups produced a significant $F$ of 6.16 (p.0005), and the Newman-Keuls test showed that the Asian and Latin American students were

significantly more apprehensive when communicating in English than either the Middle Eastern or European students.

As in previous studies (Fayer, McCroskey & Richmond, 1982; McCroskey, Fayer & Richmond, 1983; Allen & Andriate, 1983, 1984), Latin Americans reported the greatest increase in apprehension when English was the language of communication. A difference of 12.89 was observed in the man PRCA-24 scores of Hispanics between communicating in their native Spanish and their second language, English. Asians showed an increase of 5.30 between communicating in their native languages and English, but their mean score of 66.31 when speaking in their native language was above the norms for other groups on the PRCA-24 (McCroskey, 1984). Tne mean increase native language to English was 2.77 for Europeans and only .32 for Middle Easterners.

Previous reserach indicates that approximately 20 percent of the population of the U.S. mainland experiences high levels of CA (McCroskey & Richmond, 1982). As shown by Table 3, only 14.6 percent of the total sample reported high apprehensiveness in their own language, but 33.8 percent reported being highly apprehensive when communicating in English.

Looking at regional differences, almost 40 percent of the Asian students reported high CA when speaking English, while 16.2 percent reported being highly apprehensive when communicating in their native language. Similarly, Latin Americans reported that 41.4 percent were highly apprehensive when communicating in

English, compared with a little over 15 percent who were highly apprehensive in their native language. Europeans with 15.5 percent frequency of CA in their native languages were just below the mainland U.S. norm of 20 percent, but they were almost par with 22.2 percent when communicating in English. Subjects from the Middle East reported an unprecedented low frequency of CA of around 10 percent in both their native language and English. Thus, Middle Easterners had frequencies of CA substantially below previous mainland U.S. norms; Europeans reported CA levels comparable to previously established mainland U.S. norms; and Asians and Latin Americans had frequencies well above previous norms when communicating in English.

Breaking PRCA-24 scores down relative to specific contexts reveals significant differences when subjects' were communicating in their native language in the group (F=3.95, P .01) and interpersonal contexts ( F=2.61, p .51) (Table 2). Analysis by the Newman-Keuls multiple comparison procedure confirmed that Asians were more apprehensive when speaking in their native language than either Europeans, Latin Americans, or Middle Easterners. Groups from the four regions did not differ when in the meeting or public speaking contexts.

Examination of Table 2 will also reveal that when speaking in English subjects from the four regions differed significantly in all four contexts -- group, meeting, interpersonal and public speaking.

Multiple comparisons using the Newman-Keuls test reveal that while Asians and Latin Americans did not differ from each other in terms of amount of CA experienced, Asians and Latin Americans experienced significantly more CA in group, meeting and public speaking contexts than did Europeans or Middle Easterners. Asians and Latin Americans reported significantly more CA in the interpersonal context than did Middle Easterners. Though Europeans reported less CA than the Asian and Latin American subjects, this difference was not significant. The results of CA in specific contexts would lead to the conclusion that when Asians communicate in their native language they experience more discomfort than other groups in more informal, personal communication situations, while both Asians and Latin Americans are anxious and uncomfortable in all contexts when English is the mode of communication.

An examination of Table 2 in terms of the relationship between sex and CA reveals an inconsistent pattern. Asian women were more apprehensive than Asian men in group and meeting contexts when speaking in their native languages, and were more apprehensive in meeting and public speaking contexts when communicating in English. Thus, Asian women would be expected to experience discomfort when interacting in public and/or formal contexts. They would probably be quiet and obsequious in the classroom. Such traits are often penalized by U.S. faculty who expect student participation and abhor passivity in students.

Data on Latin American subjects produced an interesting and somewhat inscrutable finding. Latin American women were generally less apprehensive than Latin American men when communicating in either their native language or English. Women from the Latin American region were significantly less apprehensive than men in group and dyadic contexts when speaking in their language, and were signifcantly less apprehensive in the group context when speaking in English.

As would be expected from the results of previous studies, female subjects from all regions were slightly more apprehensive in the public speaking context. These results suggest that some general effects of CA may be related to sex differences. However, given the small amounts of the variance of CA, generally and in specific contexts, accounted for by sex (Table 4), it is probable that cultural biases relative to sex roles account for more of the differences in CA scores than does biological sex. Conclusions concerning sex differences and CA must take cognizance of the culture of the individual and the individual's perceptions of the expectations of the culture in which the behavior is being performed (Leary, 1983; McCroskey, Fayer & Richmond, 1983; Richmond & Andriate, 1984).

The last research question dealt with the relationship of the number of years subjects had spoken English, years in the mainland U.S., and CA in English. Subjects in this study had spoken English an average of 5.15 years, and had been in the U.S. an average of 2.25 years. Table 5 reports the correlations between these

variables. A low correlation was found to exist between the number of years that subjects had spoken English and the amount of apprehension experienced when speaking English. Almost no correlation exists between CA and the number of years subjects had been in the mainland U.S. The fact that subjects who had spoken English more years were less apprehensive may help to explain why CA is greater in English than in subjects' native language. However, since these correlations are low, it is to be suspected that there is a level where experience with a language has no effect on CA. This conclusion certainly seems warranted in light of the research literature concerned with language proficiency and CA (Allen, Andriate & Cusick, 1982; Fayer, McCroskey & Richmond, 1982; McCroskey, Fayer & Richmond, 1982; Andriate & Allen, 1984).

Moreover, as can be seen by examining Table 6, significant and positive correlations were observed between CA in native language and CA in English for the total PRCA and each context. These strong correlations indicate that CA is a trait which can be generalized to both native language and English. In other words, in terms of CA theory it would be expected that a higher level of CA in a subject's native language would be positively related to a higher level of CA in a second language (Fayer, McCroskey & Richmond, 1982; McCroskey, Fayer & Richmond, 1983). This was the case in this study.

Taken together the results reported in Tables 5 and 6 suggest that those who are highly apprehensive when speaking in their native language will experience difficulty in learning a second language. It is contended that lowered affective filter thresholds are essential to the development of competence in a second language (Krashen, 1981). Given that CA is an affective response the implications are critical for those communicating in a second language. Considerable evidence indicates that a person who is highly apprehensive will avoid communication. Thus, if a person is apprehensive in his/her first language, it is probable s/he will be apprehensive in the second language. Perhaps subjects in this study who were even more apprehensive in English than in their native language were avoiding those situations to the extent possible when called upon to function in English. This may be why years in the mainland U.S. is not predictive of CA.

## CONCLUSIONS

In this study, Middle Eastern and European subjects reported levels of apprehension well below norms previously established on mainland U.S. subjects, while Asian and Latin American subjects reported levels of apprehension just slightly below those previous norms when communicating in their native language. All groups

indicated that CA was more of a problem in English, but Asians and Latin Americans reported suprisingly larger amounts of CA when speaking English, generally and in the sub-contexts.

The results of this study, and those cited earlier, suggest that the effects of CA are generalizable in varying degrees across cultures. However, differences can be expected from culture-to-culture depending upon specific communication norms and the value the culture places on communication (Richmond & Andriate, 1984).

Studies on U.S. student populations have indicated that those who are highly apprehensive can be expected to be perceived as less competent in the classroom than those who are less apprehensive (McCroskey, 1977; Powers & Smythe, 1980; Allen, 1984). Non-native English speakers would be expected, given the results reported here, to be severely handicapped by the combination of cultural differences and higher levels of CA.

While the limited number of subjects would suggest that these results should be generalized with caution, these results are extremely meaningful when taken with other studies examining the incidence of CA in cross-cultural populations. CA has been demonstrated to be broad-based trait with expected effects generally applicable across all cultures. While the degree to which CA is viewed as negative may depend on on specific cultural values, if an individual is from a cultural where oral communication is not highly valued, and s/he is highly apprehensive, s/he would experience extreme discomfort at universities in the United States

where functioning in oral communication is a necessity. Moreover, the results of this and other similar studies suggest that the "language drag" perceived in non-native English speaking students may not be reflective of either a lack of language competence or skill. CA has been found to be a significant problem for these students, and since CA is an affective response of the individual, it may not be significantly affected by more sophisticated language or skills training.

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Table 1

Reliabilities of CA Scores

| CA | Native Language | English |
|---|---|---|
| PRCA Total | .86 | .89 |
| Group | .83 | .85 |
| Meeting | .85 | .87 |
| Dyad | .83 | .84 |
| Public | .82 | .83 |

Table 2

Mean CA Scores for Native Language and English

| Sample | CA Score[1,2] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total PRCA | | Group | | Meeting | | Dyad | | Public | |
| | Native | Eng. | Native | Eng. | Native | Eng. | Native | Eng. | Native | Eng. |
| **Asian** | | | | | | | | | | |
| Female (N=40) | 69.2* | 74.8 | 16.6* | 17.4 | 18.1* | 19.6* | 15.9 | 17.5 | 16.8 | 19.8* |
| Male (N=77) | 64.8* | 70.0 | 14.7* | 16.8 | 16.8* | 17.7* | 15.8 | 16.6 | 17.4 | 18.3* |
| Total F/M (N=117) | 66.3abc | 71.6de | 15.3abc | 16.9de | 17.2 | 18.4ab | 15.8abc | 16.9de | 17.3 | 18.8ab |
| **European** | | | | | | | | | | |
| Female (N= 6) | 52.0* | 64.5 | 13.5 | 16.5* | 15.5 | 15.5 | 11.0* | 15.5 | 12.0* | 17.0 |
| Male (N=16) | 59.4* | 60.9 | 13.4 | 13.3* | 15.6 | 15.9 | 14.5* | 15.2 | 15.9* | 16.5 |
| Total F/M (N=22) | 58.6a | 61.3df | 13.4a | 13.7df | 15.6 | 15.9ac | 14.1a | 15.2df | 15.4 | 16.6ac |
| **Latin American** | | | | | | | | | | |
| Female (N=25) | 60.2 | 73.3 | 12.4* | 17.0* | 16.9 | 18.8 | 13.6* | 16.6 | 18.2 | 21.0* |
| Male (N=33) | 60.9 | 73.7 | 14.8* | 18.5* | 16.3 | 18.7 | 14.8* | 17.3 | 18.0 | 19.3* |
| Total F/M (N=58) | 60.6b | 73.5fg | 13.8b | 17.8fg | 16.2 | 18.7cd | 14.3b | 17.0fg | 18.1 | 20.0cd |
| **Middle Easterner** | | | | | | | | | | |
| Female (N=13) | 62.7 | 57.8 | 13.7 | 15.2 | 14.4 | 15.9 | 13.7 | 12.3* | 17.0 | 15.3* |
| Male (N=32) | 60.0 | 61.6 | 13.8 | 14.6 | 15.0 | 15.7 | 14.6 | 14.6* | 17.3 | 16.9* |
| Total F/M (N=45) | 60.6c | 61.0eg | 13.8c | 14.4eg | 14.9 | 15.7bd | 14.4c | 14.1eg | 17.3 | 16.6bd |
| **Total Sample** | | | | | | | | | | |
| Female (N=84) | 65.3 | 72.1* | 14.9 | 17.3 | 17.1 | 18.8 | 14.8 | 16.5 | 18.4 | 19.6* |
| Male (N=158) | 62.9 | 67.8* | 14.1 | 16.2 | 16.3 | 17.6 | 15.2 | 16.2 | 17.4 | 18.0* |
| Combined F/M (N=242) | 63.6 | 69.2 | 14.4 | 16.5 | 16.6 | 18.0 | 15.1 | 16.3 | 17.7 | 18.5 |

[1]Each pair of means appearing in the same column and having the same alphatic index are significantly different at less than .05.

[2]* in same column and sample group denotes significant difference at less than .05.

Table 3
Percentage of Subjects at Various CA Levels

| Sample | High CA (PRCA >79)[a] | | | Moderate CA (PRCA 51 & <80) | | | Low CA (PRCA <52) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Female | Male | F/M | Female | Male | M/F | Female | Male | M/F |
| **Asian (N=117)** | | | | | | | | | |
| Native | 10.4 | 27.5 | 16.2 | 75.3 | 65.0 | 71.8 | 14.2 | 7.5 | 12.0 |
| English | 36.4 | 45.0 | 39.3 | 46.8 | 55.0 | 49.6 | 16.9 | 00.0 | 17.7 |
| **European (N=22)** | | | | | | | | | |
| Native | 12.5 | 16.7 | 14.6 | 50.0 | 50.0 | 50.0 | 37.5 | 33.3 | 35.4 |
| English | 18.8 | 50.0 | 22.2 | 43.7 | 33.3 | 38.9 | 37.5 | 16.7 | 38.9 |
| **Latin American (N=58)** | | | | | | | | | |
| Native | 21.2 | 8.0 | 15.5 | 51.5 | 68.0 | 58.6 | 27.3 | 24.0 | 25.9 |
| English | 42.4 | 40.0 | 41.4 | 42.4 | 52.0 | 46.6 | 15.2 | 8.0 | 12.0 |
| **Middle Easterner (N=45)** | | | | | | | | | |
| Native | 00.0 | 23.0 | 11.5 | 78.1 | 46.2 | 62.2 | 21.9 | 30.8 | 26.4 |
| English | 6.3 | 15.4 | 10.9 | 68.8 | 69.2 | 69.0 | 25.0 | 23.1 | 24.1 |
| **Total Sample (N=242)** | | | | | | | | | |
| Native | 10.4 | 18.8 | 14.6 | 68.1 | 57.3 | 62.7 | 21.5 | 23.9 | 22.7 |
| English | 30.1 | 37.6 | 33.8 | 49.1 | 52.4 | 50.8 | 20.9 | 12.0 | 16.5 |

[a]These categories (low, moderate, high CA) employ the mean on the total PRCA score from previous U.S. mainland studies, with subjects scoring one standard deviation above the mean as high CA and those scoring one SD below as low CA (McCroskey, 1984).

Table 4

Percentage of Variance in Native and English Language CA Scores Attributable to Subjects' Sex

| CA | Native Language | English |
|---|---|---|
| PRCA Total | | |
| Group | 9.4 | 2.6 |
| Meeting | 12.1 | 6.2 |
| Dyad | 8.6 | 1.0 |
| Public | 16.9 | 12.7 |

Table 5

Correlations of Years Speaking English/
Years in Mainland U.S. & CA Speaking English

| CA | Years Speaking English | Years in the Mainland U.S. |
|---|---|---|
| PRCA Total | -.26* | -.02 |
| Group | -.23* | -.08 |
| Meeting | -.21* | -.04 |
| Dyad | -.25* | .02 |
| Public | -.20 | 02 |

*Denotes correlations which are significant, p=.01 or less.

Table 6

Correlations Between CA in Native Language
and CA in English

| CA Score* | | | | |
|---|---|---|---|---|
| PRCA Total | Group | Meeting | Dyad | Public |
| .70 | .53 | .67 | .60 | .72 |

*All correlations are significant, p .0001